

Suitable relations with SCOR and other international scientific bodies interested in Antarctic research shall be established, for the interchange of information and coordination of programs.

ICSU shall be requested to inform the United Nations through the proper channels of the existence and purpose of SCAR.

It is agreed that cooperative programs by several nations be encouraged to enable maintenance of the present Antarctic station network and possibly an increased network.

The SCAR wishes that the exchange of observations and information resulting from Antarctic research shall continue in the excellent manner which has prevailed during the IGY.

For the purposes of SCAR, it was agreed that the "Antarctic" shall be bounded approximately by the Antarctic convergence.

The meeting expressed its gratitude to the administrative secretary of ICSU and his staff for the very valuable help they have given during the meeting, and acknowledges the financial assistance offered by ICSU to initiate the work of SCAR.

### 3.2.2. Report of SCAR Working Group I; Meteorology, oceanography, chemical physics, biology, physiology

#### (a) Regular observations

**Meteorology.**—Surface and upper air synoptic observations and radiation measurements. These observations are necessary for weather and climate studies. The climate of Antarctica being very variable and changing very rapidly in the season and from season to season, a period of 10 years' continued observations is a minimum requirement.

**Oceanography.**—All the Antarctic expeditionary ships should endeavor to implement the program suggested by SCOR, in particular synoptic observations of temperature, salinity, and oxygen across the convergence zone in order to collect data along the meridians. 8-15-day periods for such simultaneous observations should be established through International agreement.

Investigations should be carried out on the coastal shelf as well as in deeper water.

**Report.**—Working Group I stresses to Working Group II the importance of marine cartography of the coast and the topography of the bottom near the continent.

**Ionospheric physics.**—Vertical ionospheric soundings according to the IGY program should be continued on a routine basis at a limited number of stations. These stations will form a part of the permanent network of ionospheric stations and they ought therefore to be continued for a number of years (a sunspot period).

**Auroral physics.**—Auroral all-sky-camera recordings should be continued for some years at one station very close to the auroral zone and at a second station some distance from the auroral zone.

**Geomagnetism.**—Normal and rapid recording of the three components D H Z of the magnetic field should be continued at one station at least for a number of years covering a sunspot period.

**Biology and physiology.**—For terrestrial biology, it is important to study as many animals as possible. For marine biology, the SCOR program should be implemented.

#### (b) Special observations

**Meteorology.**—Measurements of the total content of ozone by means of spectrophotometer should be continued for a number of years at a selection of stations. The distribution of the vertical distribution of ozone should also be determined with ozone sondes.

Traverse party should take the temperature of the ice down to at least 10 meters as the temperature at 10 meters is very similar to the mean annual temperature at the surface.

Measurements of carbon dioxide content of the air should be carried out as during the IGY.

**Ionospheric physics.**—Measurements of radio noise and direction of atmospheric waves should be continued as well as the observation of whistler in collaboration with Arctic observations.

**Auroral physics.**—Special studies on auroral heights, direction of forms, etc., based on parallactic photos of aurorae. Moreover, spectral observations should be taken as well as radar reflections from aurorae.